

Amendments to the Claims

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

1-74. (Cancelled)

75. (New) A method of detecting an envelope of an audio signal comprising the steps of:

filtering the audio signal to produce a filtered audio signal;

rectifying the filtered audio signal to produce a rectified signal;

detecting peak values of the rectified signal to produce a detected signal;

sampling the detected signal at predetermined time intervals to produce samples;

and

resetting the detected signal immediately after sampling.

76. (New) The method according to claim 75, wherein the rectifying step uses half wave rectification.

77. (New) The method according to claim 75, wherein the rectifying step uses full wave rectification.

78. (New) The method according to claim 75, wherein the detected peak values remain at a substantially constant value prior to the sampling step.

79. (New) The method according to claim 78, wherein the detected signal or detected signals is reset substantially to zero.

80. (New) The method according to claim 75, wherein the sampling rate used in the sampling step is relatively low compared to frequency components in the filtered audio signal.

81. (New) The method according to claim 75, wherein the audio signal is input to a cochlear implant device.

82. (New) An apparatus for detecting an envelope of an audio signal comprising:
means for filtering the audio signal to produce a filtered audio signal;
means for rectifying the filtered audio signal to produce a rectified signal;
means for detecting the peak values of the rectified signal to produce a detected signal;
means for sampling the detected signal at predetermined time intervals to produce samples; and
means for resetting the means for detecting immediately after sampling, such that the detected signal is reset immediately following sampling.

83. (New) The apparatus according to claim 82, wherein the means for rectifying is one or more full wave rectifiers.

84. (New) The apparatus according to claim 82, wherein the means for rectifying is one or more half wave rectifiers.

85. (New) The apparatus according to claim 82, wherein the detected peak values remain at a substantially constant value prior to sampling.

86. (New) The apparatus according to claim 85, wherein the detected signal or detected signals is reset substantially to zero.

87. (New) The apparatus according to claim 82, wherein the sampling rate used by the means for sampling is relatively low compared to frequency components in the filtered audio signal.

88. (New) The apparatus according to claim 82, wherein the audio signal is input to a cochlear implant device.